

How can this company develop and launch a highly intuitive and data-driven diabetes management platform within the next 12 months, leveraging advanced analytics and artificial intelligence, to address the current market gap and achieve a 20% increase in market share within the first year of product launch?

I want to figure out the best indicators for diabetes based on the data I have acquired. My client is a technology company interested in developing tools for diabetes management. By continuing to analyze ongoing research on this type of data, the goal is to allow doctors and patients to have a better understanding about this deeply troubling disease. It can allow for better education, predictive analytics tools, and monitoring/logging apps to shape a brighter future. It can allow for tools and treatment that can be less intrusive and more practical for the common person. The findings of this data can corroborate or provide new insight into this topic despite previous research having been done.

To further explain, this data can be used for personalized treatment plans, enhanced monitoring, and improving early detection. Plans can be tailored based on specific indicators. Knowing which indicators to look out for helps with monitoring. Better tracking mechanisms can help discover individuals at risk.

I will be using diabetes health indicators data from the CDC, located in the UC Irvine Machine Learning Repository. This data presents survey findings with questions about general and mental health, and more specifically variables like blood pressure, difficulty walking, and more. I plan to use random forest or linear regression models to find which variables matter the most. I need to double check the data, but the survey results are numerical and correspond to certain answers. For example, for sex, 1 is for males and 2 for females. I will create a slide deck showing my findings.

What is the problem you want to solve?

- Who is your client and why do they care about this problem? In other words, what will your client do or decide based on your analysis?
- What data are you using? How will you acquire the data?

Briefly outline how you'll solve this problem. Your approach may change later, but this is a good first step to get you thinking about a method and solution.

- What are your deliverables? Typically, this includes code, a paper, or a slide deck. For this capstone, the deliverables include:

- A GitHub repo containing the work you complete for each step of the project, including:

- A slide deck
- A project report